

This Addendum must be signed and faxed back to McClelland Consulting Engineers at 501-371-9932 to acknowledge receipt 24 hours prior to the bid opening.

Signature: _____

Company: _____

ADDENDUM NO. 2

DATE: 7/14/2017

**RE: COUNTS MASSIE ROADWAY EXTENSION
MAUMELLE, ARKANSAS**

FROM: McClelland Consulting Engineers, Inc.

7302 Kanis Road
Little Rock, Arkansas 72204
Phone: 501/371-0272

TO: PROSPECTIVE BIDDERS:

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated **April, 2017** as noted below. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of 21 pages.

CLARIFICATIONS

1. Geotechnical Investigation Report: **The geotechnical investigation report has been uploaded on the City of North Little Rock's website. A link to the website is as follows: http://nlr.ar.gov/government/a_z_department_list/commerce/current_bids_and_bid_summaries/**
2. "Select Fill Material" is defined as follows in the geotechnical investigation report (Page 9): **"Native soils are not considered suitable for use as fill beneath pavements and sidewalks. Imported fill material should meet the requirements of select material. The CBR value for any materials to be classified as "select material" in the pavement subgrade should be tested to ensure a minimum CBR value of eight (8). Additionally, imported select material is recommended to be locally available material meeting Unified Soils Classification as a GC, GW or GM material, having a Plasticity index of 20 or less, and having a Liquid Limit of 50 or less. The structural embankment material should be compacted in place in maximum eight (8)-inch lifts to a minimum of 98 percent of the maximum density as determined by the Standard Proctor Test, ASTM D 698. The select embankment material should be compacted between five (5) percent below and two (2) percent above the optimum moisture content. Any additional fill material required within the Right-of-Way should also meet the requirements of select material. The soil, fill, and base materials for embankment and**

subgrade should be controlled in accordance with Section 306 and other appropriate sections of Division 300 of the AHTD Standard Specifications for Highway Construction, latest edition. All trenching and excavation should be conducted in accordance with Arkansas State Law and OSHA guidelines and requirements.”

3. General Conditions Page 19 – Prosecution of the Work.
If inclement weather does not allow the Contractor to work one or more regular work days in a week, the Contractor may be permitted to perform work requiring inspection the following Saturday without being charged for additional engineering services. Note that such work will need to be authorized by the City of North Little Rock and the City of Maumelle. The Engineer shall also be informed at least 48 hours prior to performing the work on a Saturday so that they can make sure an inspector is available to be at the job site.
4. Utility Relocations: **The City of North Little Rock has coordinated with utility companies to inform them about this project.**
5. Undercut, Select Fill and Stone Backfill Cross Section: **Attached are details/cross section sheets that show the undercut/stone backfill sections in fill or cut areas.**
6. Earthwork shall be paid per plan quantities only: **This applies to bid items # 7 and 10. Undercut of poor soils and replacement with select fill materials or stone backfill will be measured and paid for separately.**
7. Right of Way and Easements – **All Right of Way and Easements have been acquired by the City of North Little Rock and the City of Maumelle.**
8. Maintenance of Traffic – **Vehicles shall be allowed to drive on gravel surface after completion of phase 1 until completion of phase 2. Asphalt shall be installed at the end of the project, half of the street width at a time while allowing tow way traffic on the remaining half.**
9. Expected start date and timeframe on completion: **The construction is expected to start in the first week of August and is expected to be completed in 150 calendar days.**
10. Job Trailer/Office: **A job trailer or office will not be required for this project.**
11. Tree Burning: **Trees may be burned at designated locations of the project site, and must be controlled and monitored. This work shall be completed during the daytime. No burning will be allowed after work hours.**
12. Residential Concrete Driveways: **All residential concrete driveways shall be six inches thick (6”).**

DRAWINGS

1. Wing Walls for Box Culvert: **Use attached AHTD Standard Drawing W-X45 for installation of wing walls (45 Degree Skew Angle).**

SPECIFICATIONS

1. Table of Contents: **Replace with the attached revised TOC (2 pages).**
2. Document 00300 Bid Form: **Replace with the attached revised form (7 pages).**
3. Document 01025 Measurement and Payment: **Replace with the attached revised form (7 pages).**

END OF ADDENDUM

**MAUMELLE COUNTS MASSIE ROADWAY EXTENSION
LR13-5736**

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DOCUMENT 00300

BID FORM

NOTE TO BIDDER: Please use BLACK ink for completing this Bid form.

To. _____
Address: _____

Project Title: **MAUMELLE COUNTS MASSIE ROADWAY EXTENSION**

Engineer's

Project No.: **LR13-5736**

Date: _____

Arkansas Contractor's
License No.: _____

Bidder: _____

Address: _____

Bidder's person to contact for additional information on this Bid:

Name: _____

Telephone: _____

ADDENDA

The Bidder hereby acknowledges that he/she has received Addenda Numbers:

_____ to these Specifications.
(Bidder insert number of each addendum received.)

INSURANCE AND BONDING REQUIREMENTS

The Bidder hereby acknowledges that he/she has read and understands the performance bond, payment bond, and insurance requirements for this project as specified in the General Conditions. If awarded a construction contract, the Bidder agrees to furnish the required bonds and insurance certificates within fifteen (15) days of the date the award is made.

Signature _____ Title _____

MEASUREMENT AND PAYMENT

The Bidder hereby acknowledges that he/she has read and understands Section 01025 - Measurement and Payment completely prior to completing this Bid Form.

Signature _____ Title _____

BIDDER'S DECLARATION AND UNDERSTANDING

The undersigned, hereinafter called the Bidder, declares that the only persons or parties interested in this Bid are those named herein, that this Bid is, in all respects, fair and without fraud, that it is made without collusion with any official of the Owner, and that the Bid is made without any connection or collusion with any person submitting another Bid on this Contract.

The Bidder further declares that he has carefully examined the Contract Documents for the construction of the project, that he has personally inspected the site, that he has satisfied himself as to the quantities involved, including materials and equipment, and conditions of work involved, including the fact that the description of the quantities of work and materials, as included herein, is brief and is intended only to indicate the general nature of the work and to identify the said quantities with the detailed requirements of the Contract Documents, and that this Bid is made according to the provisions and under the terms of the Contract Documents, which Documents are hereby made a part of this Bid.

The Bidder further agrees that he has exercised his own judgment and has utilized all data which he believes pertinent from the Engineer, Owner, and other sources in arriving at his own conclusions.

The Bidder states that he has experience in and is qualified to perform the work herein specified and, if he does not have craftsmen experienced and qualified in any phase of the work for which this Bid is offered, that he will subcontract the work under said phase to a contractor who does have the necessary experience and qualifications.

CONTRACT EXECUTION AND BONDS

The Bidder agrees that if this Bid is accepted, he will, within 15 days after notice of award, sign the Contract in the form annexed hereto, and will at that time, deliver to the Owner the Performance Bond and Payment Bond required herein, and will, to the extent of his Bid, furnish all machinery, tools, apparatus, and other means of construction and do the work and furnish all the materials necessary to complete all work as specified or indicated in the Contract Documents.

CERTIFICATES OF INSURANCE, PAYMENT BOND, AND PERFORMANCE BOND

The Bidder further agrees to furnish the Owner, before executing the Contract, the certificates of insurance, Payment Bond, and Performance Bond as specified in these Documents.

START OF CONSTRUCTION, CONTRACT COMPLETION TIME, AND LIQUIDATED DAMAGES

Start of Construction, Contract Completion Time, and Liquidated Damages are stated in Document 00500 - Contract.

SALES AND USE TAXES

The Bidder agrees that all federal, state, and local sales and use taxes are included in the stated bid prices for the work.

UNIT PRICE BASE BID

Any Bid may be rejected which contains material omissions, or irregularities, or in which any of the unit prices are obviously unbalanced in the opinion of the Owner. Also, a bid may be rejected if, in any manner it shall fail to conform to the conditions of the published Bidding Requirements and Contract Documents.

The bidder agrees to accept as full payment for the work proposed herein the amount computed under the provisions of the Contract Documents and based on the following unit price amounts, it being expressly understood that the unit prices are independent of the exact quantities involved. The bidder agrees that the unit prices represent a true measure of the labor and materials required to perform the work, including all allowances for overhead and profit for each type and unit of work called for in the Contract Documents.

Item No.	Item Description	Units	Quantity	Unit Cost	Total Cost
SITE PREPARATION, CLEARING, EROSION CONTROL, MAINTENANCE OF TRAFFIC, TRENCH SAFETY AND MISCELLANEOUS ITEMS					
1	Site Preparation	LS	1	\$	\$
2	Clearing and Grubbing	LS	1	\$	\$
3	Erosion Control Items (Ditch Checks, Inlet Protections, SWPPP, Mailbox, Stabilized Construction Entrance and Concrete Washout)	LS	1	\$	\$
4	Maintenance of Traffic	LS	1	\$	\$
5	Arkansas Code Ann. §22-9-212 Trench and Excavation Safety System	LS	1	\$	\$
6	Miscellaneous (Mobilization, Demobilization, Bonds, Insurance, As-Built Record Drawings, and Any Items not Covered Elsewhere to Complete the Project per the Drawings and Specifications)	LS	1	\$	\$
ROADWAY WORK IN NORTH LITTLE ROCK					
7	Unclassified Excavation to Subgrade	CY	3,075	\$	\$
8	Undercut of Unsuitable Material Below Subgrade and Replace With Select Soil Fill (Removal Of Existing Material And Replacement of New Material With Proper Compaction)	CY	3,750	\$	\$
9	Stone Backfill (B-Stone)	TON	5,250	\$	\$
10	Embankment Construction of Select Fill	CY	1,350	\$	\$
11	ACHM Surface Course (2")	TON	1,125	\$	\$
12	ACHM Binder Course (3")	TON	1,575	\$	\$
13	Class 7 Base Course (10")	TON	5,962.50	\$	\$
14	Geotextile Fabric	SY	10,125	\$	\$
15	Tack Coat	GAL	300	\$	\$
16	18" RCP	LF	67.50	\$	\$
17	18" Concrete Flared End Section	EA	6	\$	\$
18	Double 8' x 3' Concrete Box Culvert	LF	37.50	\$	\$
19	Wing Walls for Box Culvert	LS	0.50	\$	\$
20	Concrete Driveways	SY	187.50	\$	\$
21	Concrete Ditch Paving	SY	40	\$	\$
22	4" Solid Double Yellow Striping	LF	1,950	\$	\$
23	4" Solid White Striping	LF	3,900	\$	\$
24	Traffic Signs and Posts	EA	4	\$	\$
25	Riprap	TON	75	\$	\$

26	Silt Fence	LF	3,375	\$	\$
27	4" Topsoil Furnished and Placed	CY	825	\$	\$
28	Seeding	ACRE	2.25	\$	\$
29	Impact Attenuation Barrier	EA	3	\$	\$
30	Concrete Barrier	LF	1,100	\$	\$
ROADWAY WORK IN MAUMELLE					
31	Unclassified Excavation to Subgrade	CY	1,025	\$	\$
32	Undercut of Unsuitable Material Below Subgrade and Replace With Select Soil Fill (Removal Of Existing Material And Replacement of New Material With Proper Compaction)	CY	1,250	\$	\$
33	Stone Backfill (B-Stone)	TON	1,750	\$	\$
34	Embankment Construction of Select Fill	CY	450	\$	\$
35	ACHM Surface Course (2")	TON	375	\$	\$
36	ACHM Binder Course (3")	TON	525	\$	\$
37	Class 7 Base Course (10")	TON	1,987.50	\$	\$
38	Geotextile Fabric	SY	3,375.00	\$	\$
39	Tack Coat	GAL	100	\$	\$
40	18" RCP	LF	22.50	\$	\$
41	18" Flared End Section	EA	2	\$	\$
42	Double 8' x 3' Concrete Box Culvert	LF	37.50	\$	\$
43	Wing Walls for Box Culvert	LS	0.50	\$	\$
44	Concrete Driveways	SY	62.50	\$	\$
45	Concrete Ditch Paving	SY	40	\$	\$
46	4" Solid Double Yellow Striping	LF	650	\$	\$
47	4" Solid White Striping	LF	1,300	\$	\$
48	Traffic Signs and Posts	EA	2	\$	\$
49	Riprap	TON	75	\$	\$
50	Silt Fence	LF	1,125	\$	\$
51	4" Topsoil Furnished and Placed	CY	275	\$	\$
52	Seeding	ACRE	0.75	\$	\$
53	Impact Attenuation Barrier	EA	2	\$	\$
54	Concrete Barrier	LF	1,100	\$	\$

TOTAL AMOUNT BID \$ _____

Words

BASIS OF AWARD

The Bidder understands that the Contract will be awarded to the most qualified bidder with the lowest Total Base Bid that the Owner may choose that makes the Project cost acceptable to the Owner. The Owner reserves the right to waive irregularities, reject bids, choose the most qualified bidder for the Project, and to postpone award of the Contract for a period of time which shall not exceed beyond 90 days from the bid opening date.

PAYMENT SCHEDULE

A detailed payment schedule for each structure or unit shall be submitted by the successful low Bidder. The successful low Bidder shall meet with the Engineer and Owner in Little Rock, Arkansas, to review the format and details of the payment schedule. This meeting shall be held within 5 days of notification that the Contractor is the low Bidder. The purpose of the meeting shall be to establish an acceptable format for the payment schedule. The construction detailed payment schedule shall be completed by the Contractor 14 days after the meeting and submitted to the Engineer and Owner for review and approval. Failure of the Contractor to submit the payment schedule as required may result in the Owner's rejection of the Bid or delay in processing the Contractor's request for a progress payment.

SUBCONTRACTORS

The Bidder further certifies that proposals from the following subcontractors were used in the preparation of this Bid; and if awarded a contract, Bidder agrees to not enter into Contracts with others for these divisions of the Work without written approval from the Owner and Engineer.

Subcontractor

Arkansas Contractor License #

Street Address, City, State, Zip Code

Subcontractor

Arkansas Contractor License #

Street Address, City, State, Zip Code

Subcontractor

Arkansas Contractor License #

Street Address, City, State, Zip Code

Subcontractor

Arkansas Contractor License #

Street Address, City, State, Zip Code

SUPPLIERS/VENDORS

The Bidder shall list the suppliers/vendors where material for this Project will be purchased from and successful Bidder shall updated suppliers/vendors during construction of the Project.

Supplier/Vendor Name

Street Address, City, State, Zip Code

Phone Number

Supplier/Vendor Name

Street Address, City, State, Zip Code

Phone Number

Supplier/Vendor Name

Street Address, City, State, Zip Code

Phone Number

Supplier/Vendor Name

Street Address, City, State, Zip Code

Phone Number

PERFORMANCE OF WORK BY CONTRACTOR

The Bidder shall perform at least 40 percent of the work with his own forces (**70 percent for water and sewer line projects**) (refer to Paragraph 24, INSTRUCTIONS TO BIDDERS. Bids from so called "Brokerage Contractors" will not be considered.) List below the items that the Bidder will perform with his own forces, if awarded this Contract, and fill in the blank showing the estimated total cost of these items.

Estimated total cost of the above items the Bidder states that will be performed with his own forces, if awarded Contract:

_____ Dollars (\$ _____)
(Words)

EXPERIENCE OF BIDDER

The Bidder states that he is an experienced Contractor and has completed similar projects within the last 5 years. (List similar projects, with types, names of clients, construction costs, and references with telephone numbers. Use additional sheets if necessary.)

SURETY

If the Bidder is awarded a construction Contract on this Bid, the Surety who provides the Performance and Payment Bond will be:

_____ whose address is:

Street, City, State Zip Code

BIDDER

The name of the Bidder submitting this Bid is:

_____ doing business at:

Street, City, State, Zip Code

which is the address to which all communications concerned with this Bid and with the Contract shall be sent.

The names of the principal officers of the corporation submitting this Bid, or of the partnership, or of all persons interested in this Bid as principals are as follows:

If Sole Proprietor or Partnership

IN WITNESS hereto the undersigned has set his (its) hand this ____ day of _____, 20__.

Signature of Bidder

Title

If Corporation

IN WITNESS WHEREOF the undersigned corporation has caused this instrument to be executed and its seal affixed by its duly authorized officers this ____ day of _____, 20__.

Name of Corporation

By _____

Title _____

Attest _____

Secretary

(SEAL)

SECTION 01025

MEASUREMENT AND PAYMENT

PART 1. GENERAL

1.1 RELATED SECTIONS

- A. Document 00300 - Bid.
- B. Section 00700 - General Conditions.
- C. Section 01001 - Basic Requirements.

1.2 MEASUREMENT OF QUANTITIES

- A. All work completed under the contract will be measured by the Engineer, or his/her authorized representatives, using United States Customary Units of Measure or the International System of Units.
- B. The method of measurement and computations to be used in determination of quantities of material furnished and of work performed under the contract will be those methods generally recognized as conforming to good engineering practice.

1.3 SCOPE OF PAYMENT

- A. The Amount for Work listed in the Bid, whether lump sum or unit price, shall include all costs specified on the Bid Form, including all miscellaneous amounts (mobilization, demobilization, bonds, insurance, as built record drawings, traffic control, erosion control, plans and any items not covered elsewhere) to complete the project in accordance with the Contract Documents.
- B. The quantities listed in these documents are approximate, for information only, and should be verified by each bidder prior to bidding
- C. Payments for lump sum items shall be made in proportion to the amount of Work accomplished, as determined by the Engineer, as of the period ending date of each Application for Payment.
- D. Payment for unit price items shall be made as the work progresses. Said payments will be based upon the work performed and materials complete in place in accordance with the contract, plans, and specifications, approved by the Engineer, as of the period ending date of each Application for Payment.

- E. It is understood and agreed that the Contractor shall not be entitled to partial payment based on quantities of work in excess of those provided in the proposal or covered by approved change orders or supplemental agreements, except when such excess quantities have been determined by the Engineer to be a part of the final quantity for the item of work in question.
- F. No partial payments shall bind the Owner to the acceptance of any materials or work in place as to quality or quantity. All partial payments are subject to correction at the time of final payment.
- G. The Contractor has sole responsibility for providing materials, equipment and work which meet the specifications. In the event inspection or testing reveals that materials/equipment furnished or work performed by the Contractor does not meet the specifications, payment for said materials/equipment/work will be withheld until compliance with the specifications is demonstrated by the Contractor.

1.4 UNIT PRICE ITEMS

- A. Item No. 1 – Site Preparation.
 - 1. Unit of measure: Lump Sum.
 - 2. This item shall compensate the Contractor for all materials, tools, labor, and equipment required for site preparation. It includes, but is not limited to, removal and off-site disposal of all items shown on the demolition plan (not to include the removal and disposal of existing asphalt and base, which is paid for as unclassified excavation), and relocation of mailboxes.
- B. Item No. 2 – Clearing and Grubbing.
 - 1. Unit of Measure: Lump Sum.
 - 2. This item shall compensate the Contractor for materials, labor, tools, and equipment required for the clearing and grubbing of trees and bushes in accordance with the Drawings and Specifications.
- C. Item No. 3 – Erosion Control Items (Ditch Checks, Inlet Protections, SWPPP, Mailbox, Stabilized Construction Entrance and Concrete Washout).
 - 1. Unit of measure: Lump Sum
 - 2. This item shall compensate the Contractor for all materials, tools, labor, and equipment required for installing and maintaining erosion control items such as ditch checks, inlet protections, storm water pollution prevention plans, SWPPP mail box, stabilized construction entrances and concrete washouts. The Contractor shall be responsible for preparing and submitting a Storm Water Pollution Prevention Plan to the engineer for approval. This plan shall be maintained and updated during the course of construction by the Contractor’s superintendent.
- D. Item No. 4 – Maintenance of Traffic.
 - 1. Unit of measure: Lump Sum

2. This item shall compensate the Contractor for materials, labor, tools, and equipment to provide maintenance of traffic control per the drawings and specifications. The Contractor shall provide access to local traffic at all times during construction. Any road closures shall be coordinated with the City of Maumelle, City of North Little Rock, and the property owners.
 3. This item shall not include payment for impact attenuation barriers and concrete barriers. They will be measured and paid for separately.
- E. Item No. 5 – Arkansas Code Ann §22-9-212, Trench and Excavation
1. Unit of measure: Lump Sum
 2. This item shall compensate the Contractor the cost associated with trench and excavation safety systems required for any trench and excavation which equals or exceeds five (5) feet in depth.
 3. This item shall be paid to Contractor in final application for payment.
- F. Item No. 6 – Miscellaneous (Mobilization, Demobilization, Bonds, Insurance, As-Built Record Drawings, and Any Items not Covered Elsewhere to Complete the Project per the Drawings and Specifications).
1. Unit of measure: Lump Sum
 2. This item shall compensate the Contractor for mobilization, demobilization, bonds, insurance, as-built record drawings, and any items not covered elsewhere to complete the Project per the Drawings and Specifications.
- G. Item No. 7 & 31 – Unclassified Excavation to Subgrade.
1. Unit of measure: Cubic Yard.
 2. This item shall compensate the Contractor for materials, labor, tools, and equipment for unclassified excavation to subgrade and disposal including the removal of existing asphalt, base materials in accordance with the Drawings and Specifications, Complete.
 3. This item shall be paid per plan quantities only. Volumes are shown in the cross section sheets for reference.
- H. Item No. 8 & 32 – Undercut of Unsuitable Material Below Subgrade and Replace with Select Soil Fill (Removal of Existing Material and Replacement of New Material with Proper Compaction).
1. Unit of measure: Cubic Yard.
 2. This item shall compensate the contractor for labor, equipment, material and tools required for removing and disposing of materials deemed unsuitable by the Engineer for subgrade and replacement with select fill material. The excavated materials shall be hauled and disposed of by the Contractor. The select fill material shall be approved by the Engineer.
 3. Contractor shall also comply with the recommendations of the Geotechnical Investigation report provided in the specifications.
- I. Item No. 9 & 33 – Stone Backfill (B-Stone).

1. Unit of measure: Ton.
 2. This item shall compensate the Contractor for all materials, tools, labor, and equipment required for the removal & disposal of unsuitable subgrade materials and the installation of stone backfill.
 3. The work shall be done per AHTD Standard Specifications for Highway Construction - Section 207 (2014 Edition).
- J. Item No. 10 & 34 – Embankment Construction of Select Fill.
1. Unit of measure: Cubic Yard.
 2. This item shall compensate the Contractor for materials, labor, tools, and equipment for construction of embankment and subgrade to the grades shown on the Drawings and Specifications.
 3. This item shall be paid per plan quantities only. Volumes are shown in the cross section sheets for reference.
- K. Item No. 11 & 35 – ACHM Surface Course (2”).
1. Unit of measure: Ton.
 2. This item shall compensate the Contractor for materials, labor, tools, and equipment for installation of ACHM Surface Course for road construction in accordance with the Drawings and Specifications.
 3. The work shall be done per AHTD Standard Specifications for Roadway Construction - Section 407 (2014 Edition).
- L. Item No. 12 & 36 – ACHM Binder Course (3”).
1. Unit of measure: Ton
 2. This item shall compensate the Contractor for materials, labor, tools, and equipment for installation of ACHM Binder Course for road construction in accordance with the Drawings and Specifications.
 3. The work shall be done per AHTD Standard Specifications for Roadway Construction - Section 406 (2014 Edition).
- M. Item No. 13 & 37 – Class 7 Base Course (10”).
1. Unit of measure: Ton
 2. This item shall compensate the Contractor for materials, labor, tools, and equipment for installation of Class 7 base course in accordance with the Drawings and Specifications
 3. The work shall be done per AHTD Standard Specifications for Roadway Construction – Section 303 (2014 Edition).
- N. Item No. 14 & 38 – Geotextile Fabric
1. Unit of measure: Square Yard.
 2. This item shall compensate the Contractor for all materials, tools, labor, and equipment required to install non-woven geotextile fabric per the drawings and specifications.
- O. Item No. 15 & 39 – Tack Coat

1. Unit of measure: Gallon.
 2. This item shall compensate the Contractor for all materials, tools, labor, and equipment required for applying tack coat per the drawings and specifications.
- P. Item No. 16 & 40 – 18” RCP
1. Unit of measure: Linear Foot.
 2. This item shall compensate the contractor for labor, equipment, material and tools required for furnishing, hauling and installing 18” reinforced concrete pipe, for materials including joint filler for concrete pipe, for excavation and backfilling, including compacting backfill; for furnishing, placing, compacting structural bedding and structural backfill; reestablishing topsoil and turf or reinstalling asphalt or concrete and for all incidentals necessary to complete the work in accordance with the Drawings and Specifications.
- Q. Item No. 17 & 41 – 18” Concrete Flared End Section
1. Unit of measure: Each.
 2. This item shall compensate the contractor for labor, equipment, material and tools required for furnishing, hauling and installing 18” reinforced concrete flared end section, and for all incidentals necessary to complete the work in accordance with the Drawings and Specifications.
- R. Item No. 18 & 36 – Double 8’ x 3’ Box Culvert
1. Unit of measure: Linear Foot.
 2. This item shall compensate the Contractor for labor, equipment, material and tools required for installing double 8’ Span x 3’ Rise box culverts; for materials including joint filler, for concrete and reinforcing steel; for excavation and backfill; including compacting backfill (compacted embankment and class 7 base course per box culvert details); for furnishing, placing, and compacting structural bedding (8” Class 7 or ASTM 33 - 57 Stone); and for all incidentals necessary to complete the work in accordance with the Drawings and Specifications, complete.
 3. Selected bedding (B-Stone) shall be used if poor subgrade soils are encountered. Payment for selected bedding will be done separately (stone backfill).
 4. The Box Culvert shall be pre-cast (Forterra or approved equal).
 5. Temporary culverts may be required to be installed during the installation of the box culvert. The payment for that will be incidental to the box culvert installation.
- S. Item No. 19 & 43 – Wing Walls for Box Culvert
1. Unit of measure: Lump Sum.
 2. This item shall compensate the Contractor for all materials, tools, labor, and equipment required to install concrete wingwalls (cast-in-place) in accordance with the Drawings and Specifications.

3. All the work shall be performed per AHTD standard drawing W-X45.
- T. Item No. 20 & 44 – Concrete Driveways
1. Unit of measure: Square Yard
 2. This item shall compensate the Contractor for labor, equipment, materials and tools required to install residential concrete driveways (6” Thick), and all incidentals required to complete the work according to the plans and specifications.
- U. Item No. 21 & 45 – Concrete Ditch Paving
1. Unit of measure: Square Yard.
 2. This item shall compensate the contractor for labor, equipment, material and tools required for furnishing, hauling and installing concrete ditch paving and for all incidentals necessary to complete the work in accordance with the Drawings and Specifications.
 3. The ditch paving installed near the box culvert shall include a turndown to prevent the ditch from undermining.
- V. Item No. 22 & 46 – 4” Solid Double Yellow Striping
1. Unit of Measure: Linear Foot.
 2. This item shall compensate the Contractor for materials, labor, tools, and equipment to install 4” solid double yellow pavement striping (paint).
- W. Item No. 23 & 47 – 4” Solid White Striping
1. Unit of Measure: Linear Foot.
 2. This item shall compensate the Contractor for materials, labor, tools, and equipment to install 4” solid white pavement striping (paint).
- X. Item No. 24 & 48 – Traffic Signs and Posts
1. Unit of Measure: Each.
 2. This item shall compensate the Contractor for all materials, tools, labor, and equipment required to install traffic signs and posts per the drawings and specifications.
- Y. Item No. 25 & 49 – Riprap
1. Unit of Measure: Ton.
 2. This item shall compensate the Contractor for all materials, tools, labor, and equipment required to install riprap per the drawings and specifications.
 3. The riprap shall be approximately 1.5’ to 2’ deep. Nonwoven geotextile fabric shall be installed before installing the riprap. The geotextile fabric installation shall be subsidiary to the riprap.
- Z. Item No. 26 & 50 – Silt Fence
1. Unit of Measure: Linear Foot.
 2. This item shall compensate the Contractor for all materials, tools, labor,

and equipment required to install silt fences for erosion control per the drawings and specifications

- AA. Item No. 27 & 51 – 4” Topsoil Furnished and Installed.
 - 1. Unit of measure: Cubic Yard
 - 2. This item shall compensate the Contractor for all materials, tools, labor, and equipment required to furnish and install topsoil per the drawings and specifications. All disturbed areas shall receive top soil before being seeded.

- BB. Item No. 28 & 52 – Seeding.
 - 1. Unit of measure: Acre
 - 2. This item shall compensate the Contractor for all materials, tools, labor, and equipment required for seeding per the drawings and specifications. All disturbed areas shall be seeded.
 - 3. This item shall also compensate the Contractor for temporary seeding where necessary.

- CC. Item No. 29 & 53 – Impact Attenuation Barrier.
 - 1. Unit of measure: Each
 - 2. This item shall compensate the Contractor for all materials, tools, labor, and equipment required for installing impact attenuation barriers per the drawings and specifications.
 - 3. The impact attenuation barriers shall be moved around as necessary during construction. Barriers from construction stage 1 shall be reused in stage 2. No additional payment shall be made for reusing these barriers.

- DD. Item No. 30 & 54 – Concrete Barrier
 - 1. Unit of measure: Linear Foot.
 - 2. This item shall compensate the Contractor for all materials, tools, labor, and equipment required for installing concrete barriers for maintenance of traffic per the drawings and specifications.
 - 3. The concrete barrier installed during construction phase 1 shall be moved and reused for construction phase 2. No additional payment shall be made for reusing these barriers.

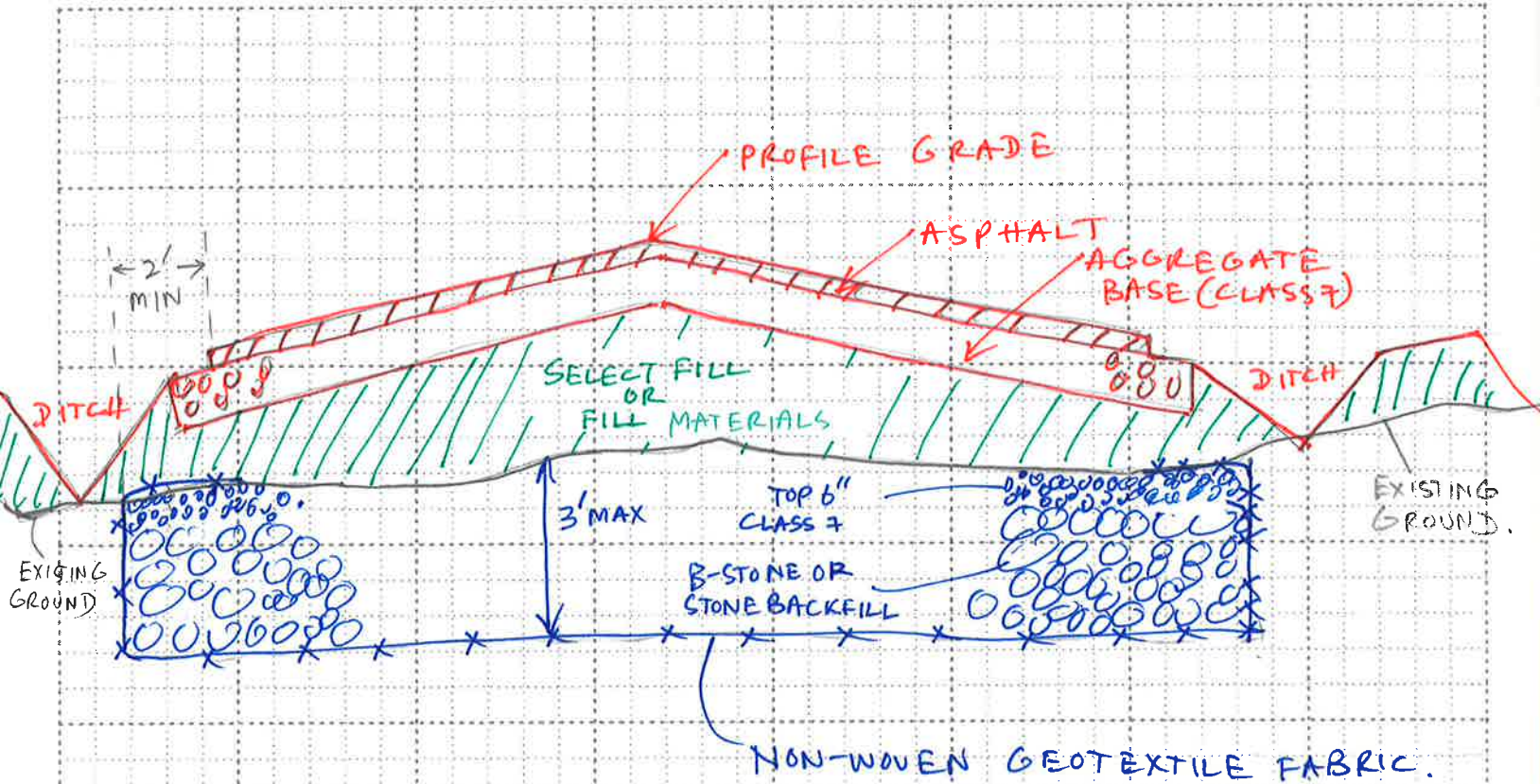
PART 2. PRODUCTS

Not Used.

PART 3. EXECUTION

Not Used.

END OF SECTION



UNDERCUT/STONE BACKFILL SECTION
IN FILL AREA.

